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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/022,787      | 12/17/2001  | Terry Robison        | 10016715-1          | 7114             |

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HEWLETT-PACKARD COMPANY  
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EXAMINER

RAYYAN, SUSAN F

| ART UNIT | PAPER NUMBER |
|----------|--------------|
| 2177     | 2            |

DATE MAILED: 07/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                        |                     |
|------------------------------|------------------------|---------------------|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |
|                              | 10/022,787             | ROBISON, TERRY      |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |
|                              | Susan F. Rayyan        | 2177                |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Statyus

1)  Responsive to communication(s) filed on 17 December 2001.

2a)  This action is FINAL.                            2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## **Disposition of Claims**

4)  Claim(s) 1-20 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5)  Claim(s) \_\_\_\_\_ is/are allowed.

6)  Claim(s) 1-20 is/are rejected.

7)  Claim(s) \_\_\_\_\_ is/are objected to.

8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on 17 December 2001 is/are: a)  accepted or b)  objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All    b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5)  Notice of Informal Patent Application (PTO-152)  
6)  Other: \_\_\_\_\_.

## DETAILED ACTION

1. Claims 1-20 are pending.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 5 recites the limitation "said adding a non-active transaction service thread" in line 1. There is insufficient antecedent basis for this limitation in the claim.  
(Claim 1 limitation: adding a database change)

4. Claim 6 recites the limitation "with claim 6" in line 1. There is insufficient antecedent basis for this limitation in the claim. (Claim 6 depends upon itself. For examination purposes Examiner interprets claim 6 to depend from claims 2 through 5.)

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. **Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Holenstein et al (US Patent Application Publication (Pub. No.: US 2002/0133507).**

**As per claims 1,9,15** Holenstein anticipates:

adding a database change to a top of a queue at paragraph 25, line 2 (whereas the change is made to the top of the queue);  
starting a non-active transaction service thread conditioned upon less than a predetermined maximum number of transaction service threads being present at paragraph 28, lines 5-7.

Holenstein teaches adding a database change to a top of a queue and starting a non-active transaction service thread conditioned upon less than a predetermined maximum number of transaction service threads being present at paragraph 25, line 2 (whereas the change is made to the top of the queue) and paragraph 28, lines 5-7.

**As per claim 2** same as claim arguments above and Holenstein anticipates: further comprising removing a non-active transaction service thread conditioned upon there being more than the lesser of said predetermined maximum number or a dynamically determined optimum number of transaction service threads present at paragraph at paragraph 258, lines 9-13.

**As per claim 3** same as claim arguments above and Holenstein anticipates: further comprising changing a waiting transaction service thread to a non-active state, conditioned upon not less than a predetermined maximum number of transaction service threads being present at paragraph 258, lines 9-13.

**As per claims 4,11,17** same as claim arguments above and Holenstein anticipates: changing the state of a non-active transaction service thread to active conditioned upon there being a database change in the queue at paragraph 28, lines 3-6; and using the active transaction service thread: removing a bottom database change from the queue at paragraph 28, line 4; performing database changes specified by the removed database change paragraph 28, line 5-6; and placing the transaction service thread into the non-active state at paragraph 28, lines 9-10.

**As per claim 5** same as claim arguments above and Holenstein anticipates: wherein said adding a non-active transaction service thread is further conditioned upon there being less than a dynamically determined optimum number of transaction service threads at paragraph 28, lines 7 and paragraph 258, lines 9-13.

**As per claim 6/2/1** same as claim arguments above and Holenstein anticipates: further comprising determining said dynamically determined optimum number of transaction service threads dependent upon a ratio of an arrival rate of database changes to the queue divided by a service time of items removed from the queue at paragraph 258, lines 9-13.

**As per claim 6/3/1** same as claim arguments above and Holenstein anticipates:  
further comprising determining said dynamically determined optimum number of  
transaction service threads dependent upon a ratio of an arrival rate of database  
changes to the queue divided by a service time of items removed from the queue at  
paragraph 258, lines 9-13.

**As per claim 6/4/1** same as claim arguments above and Holenstein anticipates:  
further comprising determining said dynamically determined optimum number of  
transaction service threads dependent upon a ratio of an arrival rate of database  
changes to the queue divided by a service time of items removed from the queue at  
paragraph 258, lines 9-13.

**As per claim 6/5/1** same as claim arguments above and Holenstein anticipates:  
further comprising determining said dynamically determined optimum number of  
transaction service threads dependent upon a ratio of an arrival rate of database  
changes to the queue divided by a service time of items removed from the queue at  
paragraph 258, lines 9-13.

**As per claims 7,13,19** same as claim arguments above and Holenstein  
anticipates:

wherein adding a database change to a top of a queue further comprises adding a corresponding set of one or more interested listeners to said queue at paragraph 28 lines 1-2, whereas the Transaction Receiver is the claimed listener.

**As per claims 8,14,20** same as claim arguments above and Holenstein anticipates:

changing the state of a non-active transaction service thread to active conditioned upon there being a database change in the queue at paragraph 28, lines 3-6; and using the active transaction service thread: removing a bottom database change and the corresponding set of interested listeners from the queue paragraph 28, line 4 and paragraph 28 lines 1-2, whereas the Transaction Receiver is the claimed listener. notifying said interested listeners that the removed database change has begun at paragraph 28, line 3-5; performing and committing database changes specified by the removed database change, conditioned upon obtaining locks necessary for transactions required for the removed database change begun at paragraph 8 and paragraph 28, line 3-5; notifying said interested listeners of a completion status of the removed database change at paragraph 28, lines 3-6; and placing the transaction service thread into the non-active state paragraph 28, lines 3-6.

**As per claims 10,16** same as claim arguments above and Holenstein anticipates: further configured to remove a non-active transaction service thread conditioned upon there being more than the lesser of said predetermined maximum number or a dynamically determined optimum number of transaction service threads present, and to determine said dynamically determined optimum number of transaction service threads dependent upon a ratio of an arrival rate of database changes to the queue divided by a service time of items removed from the queue at paragraph 258, lines 9-13.

**As per claims 12,18** same as claim arguments above and Holenstein anticipates: further condition said adding a non-active transaction service thread upon there being less than a dynamically determined optimum number of transaction service threads at paragraph 28, lines 7 and paragraph 258, lines 9-13 and to determine said dynamically determined optimum number of transaction service threads dependent upon a ratio of an arrival rate of database changes to the queue divided by a service time of items removed from the queue at paragraph 258, lines 9-13.

***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan Rayyan whose telephone number is (703) 305-0311. The examiner can normally be reached M-F: 8am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached on 703-305-9790. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for Official communications, (703) 746-7238 for After Final communications and (703) 746-7240 for Status inquires and draft communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Susan Rayyan



July 21, 2004



ALFORD KINDRED  
PRIMARY EXAMINER